Presentation to:

McKinsey & Company

September 13, 1993

Market Analysis Program

Research Methodology

INPUT Mission

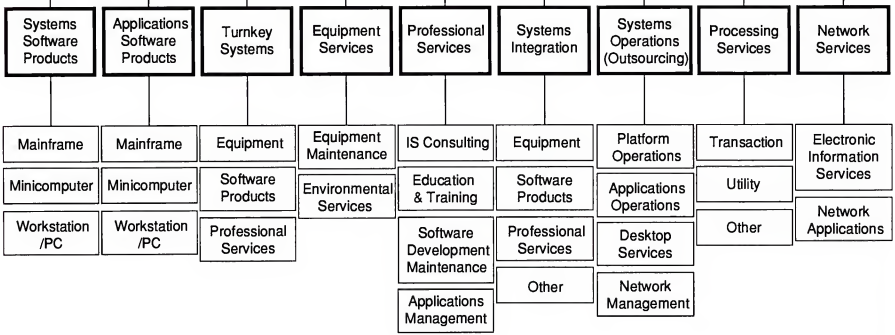
To provide objective data and insightful analysis on information services markets, companies, and products to enhance the competitive positions and increase the profits of our clients.

U.S. Information Services Market Analysis Program

Verticals

- Banking/Finance
- Discrete Manufacturing
- Process Manufacturing
- Retail Distribution
- Wholesale Distribution
- Education
- Health Services
- Insurance
- Utilities
- Federal Government
- State/Local Government
- Transportation
- Telecommunications
- Business Services
- Miscellaneous Industries

Information Services Industry Structure – 1993



U.S. Information Services Market Analysis Program

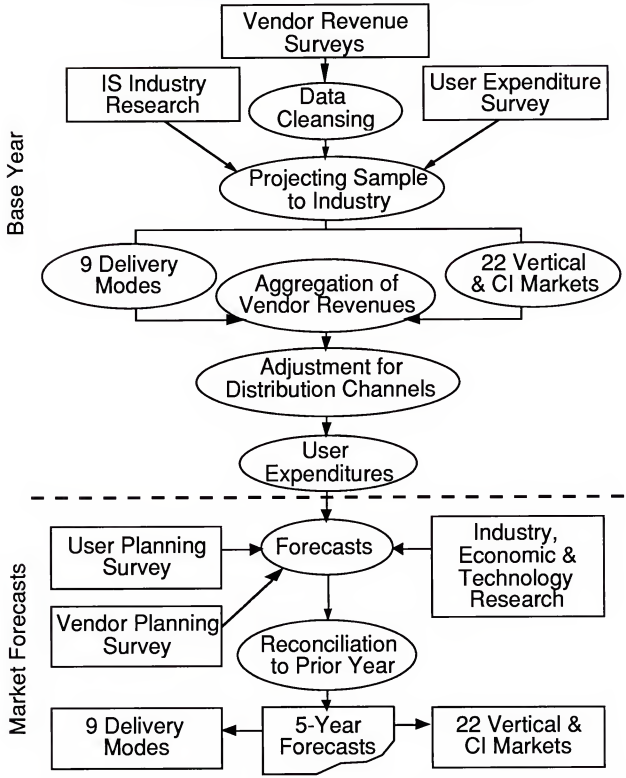
Delivery Modes

- Processing Services
- Turnkey Systems
- Systems Software Products
- Network Services
- Applications Software Products
- Professional Services
- Systems Integration
- Systems Operations (Equipment Services)

Cross-Industry Markets

- Accounting
- Planning & Analysis
- Office Systems
- Human Resources
- Engineering & Scientific
- Education & Training
- Other

INPUT Primary Market Research Methodology



Forecast Methodology

- 2,000 User Surveys (U.S.)
  - Telephone interview
  - Vertical industry
  - Size of firm
  - Functional management

  Sample Segmentation
- Survey Areas
  - New applications/technologies
  - Vendor preferences
  - Client/server
  - Outsourcing
  - Platforms
  - Budget levels and changes
  - Major issues

Forecast Methodology

- Vendor Revenue Surveys
  - Telephone Surveys
  - 400 Leading Vendors (U.S.)
    - Delivery mode leaders
    - Vertical market leaders
    - 60% of industry total dollars
  - Survey Areas
    - Total revenues, U.S. and international
    - Revenue growth by: Delivery mode, Vertical market, Client/server architecture
    - Acquisitions/divestitures
    - Price increases
    - IS employees
    - Key issues

Forecast Methodology

- Data Cleansing - Vendor Surveys
  - Calendarizing
  - U.S. revenues versus international
  - Acquisitions: growth rate adjustments
- Projecting Sample to Industry
  - Large vendors: actual and estimated revenues
  - Small vendors: average revenue/firm, times number of firms = small vendor's segment
  - Sum of large and small vendor segments = first cut

Concentrated Information Services Markets

Services	Industries
• Systems Integration	• Telecommunications
• Systems Operations	• Process Manufacturing
• Systems Software	• Utilities
• Processing Services	• Insurance
	• Federal
	• Banking and Finance

Fragmented Information Services Markets

Services	Industries
• Professional Services	• Discrete Manufacturing
• Applications Software	• Distribution
	• Health
	• State and Local Government

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Forecast Methodology
Vendor Planning Survey

- Leading and Emerging Vendors in Each Segment
  - Key issues
  - Technology trends
  - Growth promoters/inhibitors
  - Growth rate expectations
  - Product/market strategies
  - Key competitors/market shares

INPUT Market Research Conventions

- Use nominal GDP growth rates
  - Blue Chip Report (updated semiannually)
  - Inflation/deflation factor included; may be removed to get real GDP
- Rounded financial figures
- Identify respondent/population attributes (e.g., Is conclusion based upon percent of population or percent of responses?)

INPUT Market Research Common Sources of Forecast Variations

- Difference in market definition (SIC)
- Double counting where markets overlap
- Vendor market overstatement (revenues)
- User market understatement (expenditures)
  - Non-IS dollars omitted
  - Budgetary caution

Market Research Truisms

- Always a knowledgeable estimate
- Primary forecast attributes
  - Relative opportunity
  - Relative magnitude
  - Driving/inhibiting forces
  - Reconciliation (with last forecast)
  - Continuity (INPUT's 18 years)

INPUT Market Research Sample Sizes

Consideration	Interviews	
	Users	Vendors
Population typically controlling 80% exp./rev.	500-1,000	20-100
Target interviews	100	50
Minimum interviews	50	30

INPUT Market Research Confidence Level

- INPUT seeks to attain 95% confidence level
- Use targeted interviews based upon:
  - Industry
  - Topic
  - Geography
  - Installed equipment
  - Company revenues
  - Management title

Wholesale Distribution Sector Market Size by Delivery Mode 1991-1997

Delivery Modes	Growth 91-92 (%)	1992 ($M)	1997 ($M)	CAGR 92-97 (%)
Sector Total	11	2,532	4,573	13
Processing Services	3	307	418	6
- Transaction Processing	3	307	418	6
Turnkey Systems	7	522	731	7
Applications Software	11	587	1,083	13
- Mainframe	4	255	317	4
- Minicomputer	12	137	226	11
- Workstation/PC	22	195	540	23
Systems Operations	19	229	502	17
Systems Integration	16	181	384	16
Professional Services	8	380	542	7
Network Services	22	326	13	23
- Electronic Info. Svcs.	10	69	127	13
- Network Applications	21	257	786	25

Wholesale Distribution Sector 1992 MAP Data Base Reconciliation

Delivery Modes	1996 Market				91-96 CAGR per data 91 Rpt (%)	91-96 CAGR per data 92 Rpt (%)
	1991 Report (Fcst) ($M)	1992 Report (Fcst) ($M)	Variance from 1991 Report ($M)	Variance from 1991 Report (%)		
Total Wholesale Distribution Sector	3,847	4,032	185	5	12	12
Processing Services	452	391	-61	-13	8	6
-Transaction Processing	452	391	-61	-13	8	6
Turnkey Systems	683	683	0	0	7	7
Applications Software	958	958	0	0	13	13
Systems Operations	181	423	242	134	18	17
Systems Integration	331	331	0	0	16	16
Professional Services	465	565	40	9	6	8
Network Services	777	741	-36	-5	23	23

Planned Transition Toward Total Information Technology Forecasting

- Worldwide scope
- 30 countries
- Global vertical markets

New Categories

- Equipment and platform
- Staffing
- Data communications

Goal: Complete IT forecast for all key dimensions

- Country market
- Industry market
- Service/product categories

About INPUT

Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, objective analysis, and insightful opinions to support their plans, market assessments and technology directions particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

Call us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

Annual Subscription Programs

North American and European Market Analysis

Analysis of Information Services, Software and Systems Maintenance Markets
5-year Forecasts, Competitive and Trend Analysis

- 15 Vertical Markets
- 9 Categories of Software and Services
- 7 Cross-Industry Markets
- The Worldwide Market (30 countries)

— *U.S.* —

- Outsourcing
- Client/Server
- Systems Integration
- IT Vendor Analysis
- EDI / Electronic Commerce
- U.S. Federal Government IT Procurements

— *European* —

- Outsourcing
- Systems Integration
- Customer Services

Custom Consulting

Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

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